

WHAT IS CLAIMED IS:

1. A process for the treatment of water containing a contaminant, said process comprising the steps of:
 - (a) adding a sufficient quantity of hydrogen peroxide to the water; and
 - (b) radiating the water with ultraviolet rays during a sufficient time for allowing decomposition of the contaminant until said treatment is achieved.
2. The process of claim 1, wherein said ultraviolet rays are of a wavelength of 185 nm.
3. The process of claim 1, wherein said contaminant is miscible with water.
4. The process of claim 1, wherein said contaminant is selected from the group consisting of fluoresceine, benzene or derivative thereof, phenol or derivative thereof and hydrocarbon.
5. The process of claim 1, wherein step a) and step b) are performed simultaneously.
6. The process of claim 1, wherein said process is initiated with step b) followed by step a).
7. The process of claim 1, further comprising a step of passing the water in a coalescer before step a).
8. The process of claim 1, wherein said hydrogen peroxide is added until a phase separation is initiated.
9. The process of claim 8, further comprising a step of separating said emulsion into an aqueous phase and an organic phase after step b).
10. The process of claim 9, further comprising a step of using an optical sensor to isolate oils contained in said organic phase after the step of separating.